

Instructor: Dr. Betul Orcan-Ekmekci **Time:** MWF 10:00-10:50AM
Office: 440 Herman Brown Hall **Classroom:** Sewall Hall 305
Email: orcan@rice.edu **Office Hours:** Th 2-4pm.
Class Webpage: Look for Math 102 004 F14 on Owlspace

Recitations: There are three TA sessions for this course:

Time:	Sun 7-9PM	Classroom:	HBH 427
Time:	M 7-8PM	Classroom:	HBH 227
Time:	W 7-9PM	Classroom:	HBH 427
Time:	Th 7-9PM	Classroom:	HBH 427
TAs:	Yuwei Zhu (Head-TA), Tam Do,		Kuan-Wen Lai

Text: James Stewart: *Calculus Early Transcendentals 7E*. We will cover chapters 7, 8, 10 and 11. The bookstore has a custom-made book for Rice, which includes a webAssign account (see below). The book was designed to minimize costs for you, provided you want a paper copy of the book. You can also use Stewart's Single Variable Calculus: Early Transcendentals (7th Edition) or Stewart's Calculus: Early Transcendentals (7th Edition), but you will have to purchase a webAssign account separately.

Grading: Your homework will count as 20% of your final grade (10% webAssign, 10% paper assignments). The remaining portion of your grade will be the **maximum** of the following four options:

- 25% Midterm I, 25% Midterm II, 30% Final.
- 20% Midterm I, 25% Midterm II, 35% Final.
- 25% Midterm I, 20% Midterm II, 35% Final.
- 20% Midterm I, 20% Midterm II, 40% Final.

Attendance and participation: Students are expected to attend every lecture and participate actively. During each lecture, I may direct you to make your **best attempt** at answering a specific question or working out a concept, either individually, or in groups. Questions and comments are encouraged, both in and out of class. If you arrived no more than 15min late, and contributed during class, you can sign the "participation sheet" at the end of each lecture (honor code).

Homework: There are **two** components to the homework: webAssign and problems to be handed in.

1. WebAssign Homework will be due **every class day at 9:00PM** (starting on Wednesday, August 27th). It will be assigned through the WebAssign website. Each student needs to sign up for a WebAssign account and get familiar with WebAssign as soon as possible. Most homework problems are to be completed online, and are quite similar to textbook exercises.

The webAssign.net key for this course is: **rice 8524 8721**.

It is **strongly recommended** that you keep a notebook where you write down complete solutions to the assigned exercises; you can use this notebook to study for exams. Imagine that a fellow student will be reading your homework notebook to study for an exam. If your work is not detailed enough to be useful, it is unlikely to earn much credit if it were being graded. Another student reading your solutions should be able to guess at the question you are trying to answer without referring to the textbook.

2. Every week I will assign 6-8 problems from the text that you have to hand in on **Fridays at the beginning of lecture**. The first such set of problems will be due on **Friday, September 5th**. These problems will be of a nature that cannot be covered by online systems. They will be graded and returned to you a week after you hand them in.

The homework is not pledged and you can collaborate with other students in the class. Make sure you understand the solution to a problem before typing in your answer on WebAssign.

Late homework assignments will not be accepted for ANY reason – instead, your four lowest webassign scores and your lowest “written assignment” will be dropped.

Exams: There will be two **in-class** midterm tests during the semester. They will take place on **Monday, September 22nd** and on **Wednesday, November 5th**.

Final exam: The date for the final exam is not available at this time. It is the policy of the Mathematics Department that no final may be given early to accommodate student travel plans. If you make travel plans that later turn out to conflict with the scheduled exam, then it is your responsibility to either reschedule your travel plans or take a zero in the final.

Books, notes, and calculators will **not** be allowed on exams. Make-up exams will be allowed only in the case of a documented medical emergency. If an exam conflicts with a holiday you observe, please let me know before the end of the first week of classes.

Expectations: I expect you to attend every class and to arrive on time. It is your responsibility to keep informed of any announcements, syllabus adjustments, or policy changes made during scheduled classes. Not all announcements will be posted on the website.

Disability Support: Any student with a documented disability seeking academic adjustments or accommodations is requested to speak with me during the first two weeks of class. All such discussions will remain as confidential as possible. Students with disabilities will need to also contact Disability Support Services in the Allen Center.

Tentative Schedule:**Week 1:**

08/25 Introduction/Review: Integration
08/27 Review: Substitution
08/29 Section 7.1: Integration by parts

Week 2:

09/01 **No class: Labor Day**
09/03 Section 7.2: Trigonometric Integrals
09/05 Sections 7.2–7.3: Trigonometric Integrals/Trigonometric Substitution

Week 3:

09/08 Section 7.3: Trigonometric Substitution II/Partial fractions
09/10 Section 7.4: Partial Fractions II
09/12 Section 7.5: Strategy for Integration

Week 4:

09/15 Section 7.8: Improper Integrals I
09/17 Section 7.8: Improper Integrals II
09/19 Chapter 7: Review

Week 5:**09/22 MIDTERM I**

09/24 Section 11.1: Sequences I
09/26 Section 11.1: Sequences II

Week 6:

09/29 Section 11.2: Series I
10/01 Section 11.2: Series II
10/03 Section 11.3: Integral Test I

Week 7:

10/06 Section 11.3: Integral Test II
10/08 Section 11.4: Comparison Test
10/10 Section 11.4: Limit Comparison Test

Week 8:**10/13 No class: Midterm Recess**

10/15 Section 11.5–11.6: Alternating Series; Absolute Convergence
10/17 Section 11.6: Ratio and Root tests I

Week 9:

10/20 Section 11.8: Power Series
10/22 Section 11.9: Representing Functions as Power Series
10/24 Section 11.10: Taylor Series I

Week 10:

10/27 Section 11.10: Taylor Series II
10/29 Section 11.10: Taylor Series III
10/31 Section 11.11: Applications of Taylor Polynomials

Week 11:

11/03 Chapter 11: Review
11/05 MIDTERM II
11/07 Section 11.11: Taylor Polynomials II

Week 12:

11/10 Section 6.2: Volumes (Review)
11/12 Section 8.1–8.2: Arc Length; Area of a Surface of Revolution I
11/14 Section 8.1–8.2: Arc Length; Area of a Surface of Revolution II

Week 13:

11/17 Section 10.1: Parametric Curves
11/19 Section 10.2: Parametric Curves and Definite Integration
11/21 Section 10.3: Polar Coordinates I

Week 14:

11/24 Section 10.3: Polar Coordinates II
11/26 Chapter 9: A Glance at Differential Equations and Their Applications
11/28 No class: Thanksgiving break

Week 15:

12/01 Section 10.4: Area and lengths in polar coordinates I
12/03 Section 10.4: Area and lengths in polar coordinates II
12/05 Review; last day of classes